

WHAT IS CLAIMED IS:

1. A variable-length code decoding apparatus which receives a bitstream of variable-length-encoded image data and outputs symbol data, comprising:

5 cueing means for cueing a variable-length code word from the received bitstream;

discrimination means for discriminating a type of a code word in accordance with a pattern of a predetermined number of bits at a start of the
10 variable-length code word cued by said cueing means;

extraction means for extracting data having a sufficient code word length from a predetermined bit position on the basis of a discrimination result from said discrimination means;

15 a Huffman table which compares the extracted data with a variable-length code word stored in advance, and when the data and the variable-length code word coincide, outputs first symbol data;

addition arithmetic means for generating, for the
20 first symbol data output from said Huffman table, a sum value corresponding to the first symbol data and adding the generated sum value to the first symbol to output a plurality of types of second symbol data;

decoding means for selecting a predetermined bit
25 lane from the variable-length code word cued by said cueing means and outputting the bit lane as third symbol data; and

selection means for selecting and outputting one of the first symbol data output from said Huffman table, the second symbol data generated by said addition arithmetic means, and the third symbol data generated by said decoding means, in accordance with a value of the variable-length code word cued by said cueing means.

2. The apparatus according to claim 1, wherein the symbol data added by said addition arithmetic means are RUN and LEVEL.

3. The apparatus according to claim 1, wherein said discrimination means discriminates whether the code word is an escape code.

4. The apparatus according to claim 1, wherein the received bitstream is image data encoded by MPEG-4 encoding.

5. A variable-length code decoding method which receives a bitstream of variable-length-encoded image data and decodes the bitstream to at least symbol data, comprising:

a cueing step of cueing a variable-length code word from the received bitstream;

a discrimination step of discriminating a type of a code word in accordance with a pattern of a predetermined number of bits at a start of the variable-length code word cued in the cueing step;

an extraction step of extracting data having a

sufficient code word length from a predetermined bit position on the basis of a discrimination result in the discrimination step;

5 a Huffman decoding step of comparing the extracted data with a variable-length code word stored in advance as a Huffman table, and when the data and the variable-length code word coincide, outputting first symbol data;

10 an addition arithmetic step of generating, for the first symbol data output in the Huffman decoding step, a sum value corresponding to the first symbol data and adding the generated sum value to the first symbol to output a plurality of types of second symbol data;

15 a decoding step of selecting a predetermined bit lane from the variable-length code word cued in the cueing step and outputting the bit lane as third symbol data; and

20 a selection step of selecting and outputting one of the first symbol data output from the Huffman table, the second symbol data generated in the addition arithmetic step, and the third symbol data generated in the decoding step, in accordance with a value of the variable-length code word cued in the cueing step.

25 6. A computer program which functions as a variable-length code decoding apparatus which receives a bitstream of variable-length-encoded image data and

outputs symbol data, characterized by functioning as:

cueing means for cueing a variable-length code word from the received bitstream;

discrimination means for discriminating a type of
5 a code word in accordance with a pattern of a predetermined number of bits at a start of the variable-length code word cued by said cueing means;

extraction means for extracting data having a sufficient code word length from a predetermined bit
10 position on the basis of a discrimination result from said discrimination means;

a Huffman table which compares the extracted data with a variable-length code word stored in advance, and when the data and the variable-length code word
15 coincide, outputs first symbol data;

addition arithmetic means for generating, for the first symbol data output from said Huffman table, a sum value corresponding to the first symbol data and adding the generated sum value to the first symbol to output a
20 plurality of types of second symbol data;

decoding means for selecting a predetermined bit lane from the variable-length code word cued by said cueing means and outputting the bit lane as third symbol data; and

25 selection means for selecting and outputting one of the first symbol data output from said Huffman table, the second symbol data generated by said

addition arithmetic means, and the third symbol data generated by said decoding means, in accordance with a value of the variable-length code word cued by said cueing means.

- 5 7. A computer-readable storage medium which stores a computer program of claim 6.